

Chapter VII: References

Bibliography

Agency for Toxic Substances and Disease Registry

- 1999 *ToxFAQs™ for Lead*. Available at www.atsdr.cdc.gov/tfacts13.html. June.
- 2001a *ToxFAQs™ for Asbestos*. Available at www.atsdr.cdc.gov/tfacts61.html. September.
- 2001b *ToxFAQs™ for Polychlorinated Biphenyls (PCBs)*. Available at www.atsdr.cdc.gov/tfacts17.html. February.

American Indian Council of Mariposa County

- 2002 *Wahhoga Yosemite Indian Cultural Center, Yosemite Valley*. June.

Arnold, Dick

- 2003 Personal communication to Christine O'Rourke, Environmental Science Associates. June 18.

Bibby, Brian

- 1994 *An Ethnographic Evaluation of Yosemite Valley: The Native American Cultural Landscape*. Report prepared for U.S. Department of the Interior, Yosemite National Park.

California Department of Finance

- 1998 *County Population Projections with Age, Sex and Race Ethnic Detail, Demographic Research Unit*.

California Division of Mines and Geology

- 1990 *Fault-Rupture Hazard Zones in California*, by E.W. Hart. Special Publication 42, Revised.

California Economic Development Department (EDD)

- 2002a "County Snapshot – Madera 2002," <http://www.calmis.ca.gov/htmlfile/county/madera.htm>.
- 2002b "County Snapshot – Mariposa 2002," <http://www.calmis.ca.gov/htmlfile/county/marip.htm>.
- 2002c "County Snapshot – Tuolumne 2002," <http://www.calmis.ca.gov/htmlfile/county/tuolu.htm>.
- 2002d "Industry Employment Projections, by County, 1999-2006," <http://www.calmis.ca.gov/htmlfile/county/marip.htm>.

California Regional Water Quality Control Board (RWQCB), Central Valley Region

- 1998 *Water Quality Control Plan (Basin Plan): The Sacramento River Basin and the San Joaquin River Basin, Fourth Edition*.
- 2003 *Leaking Underground Storage Tanks – Quarterly Report*. April 2003. Available at www.swrcv.ca.gov/rwqcb5/available_documents/ug_tanks/LUST.pdf.

Cella Barr Associates

- 1997 *Stormwater Pollution Prevention Plan, Yosemite Lodge Development*. Prepared for the National Park Service. December.
- 1998 *Hydrologic and Hydraulic Investigation for Proposed Campgrounds in Yosemite National Park, CA*. CBA File No. 530021-05-0307.

Chow, L., J. van Wagtenonk, S. Thompson, and K. McCurdy

- 1994 Using wildlife habitat relationship models for land use planning for Yosemite Valley. *1994 Transactions of the Western Section of the Wildlife Society*, 30:49-55.

Clow, D.W., M.A. Mast, and D.H. Campbell

- 1996 Controls on Surface Water Chemistry in the Upper Merced River Basin, Yosemite National Park, California. *Hydrological Processes*, 10:727-746.

Council on Environmental Quality

- 1981 *Questions Concerning Council on Environmental Quality's National Environmental Policy Act Regulations*.

Environmental Resources Management

- 1999 *Risk-Based Corrective Action Analysis for the Yosemite Lodge Service Station Site at Yosemite National Park*. Prepared for the National Park Service. December.

Evans, Don

- 2002 Personal Communication from Delaware North Corporation at Yosemite T. Redfield, Environmental Science Associates. September 19.

Federal Register

- 1996 Endangered and Threatened Species; Notice of Reclassification of 96 Candidate Taxa. Vol. 61, No. 40, February 28.
- 2001 Endangered and Threatened Wildlife and Plants: Final Determination of Critical Habitat for the California Red-legged Frog in Alameda, Butte, Contra Costa, El Dorado, Fresno; Kern, Los Angeles, Marin, Mariposa, Merced, Monterey, Napa, Plumas, Riverside, San Benito, San Diego, San Joaquin, San Luis Obispo, San Mateo, Santa Barbara, Santa Clara, Santa Cruz, Solano, Sonoma, Stanislaus, Tehama, Toulumne, and Ventura Counties, California: Final Rule. Vol. 66, No. 49, March 13.

Foster, D.G.

- 1995 *CDF-CLFA Archeological Training for Resource Professionals Reference Manual and Study Guide*. California Department of Forestry and Fire Protection and California Licensed Foresters Association.

Fox, Gregory L. and Chester Shaw

- 1998 *A Section 110 Inventory and Post-Flood Damage Assessment of the Yosemite Valley, and Mirror Lake Loop Trails (P-22-272), Yosemite National Park, Mariposa County, California*. Prepared by the Western Archeological and Conservation Center, National Park Service, United States Department of the Interior, Tucson, Arizona. Prepared for United States Department of the Interior, National Park Service, Yosemite National Park.

Gramann, James H.

- 1992 *Expenditures by Auto Travelers Visiting Yosemite National Park*. Department of Recreation, Park and Tourism Sciences, Department of Rural Sociology, Texas Agricultural Experiment Station, Texas A&M University.

Hull, Kathleen L., Russell W. Bevill, and Michael S. Kelly

- 1995 *Report of Selected Subsurface Archaeological Investigations in Yosemite Valley, 1986-1991, Yosemite National Park, California*. Yosemite Research Center Publications in Anthropology No. 14, United States Department of the Interior, National Park Service, Yosemite Archaeology Office, El Portal.

Hull, Kathleen L., Mark Hale, Russell W. Bevill, and W.G. Spaulding

- 1998 *Archaeological Subsurface Survey and Test Excavations at Yosemite Lodge, Yosemite National Park, California*. Prepared by Dames and Moore, Inc. Submitted to United States Department of the Interior, National Park Service, Yosemite National Park.

Hull, Kathleen L., and Michael J. Moratto

- 1999 *Archeological Synthesis and Research Design, Yosemite National Park, California*. Yosemite Research Center Publications in Anthropology No. 21, Submitted to United States Department of the Interior, National Park Service, Yosemite.

Interagency Wild and Scenic Rivers Coordinating Council

- 1999 *Wild and Scenic Rivers Reference Guide*.

Jones and Stokes

- 2002 *Wetland Delineation for the Yosemite Lodge Area Redevelopment*. Prepared for the National Park Service.

Kennedy/Jenks Consultants

- 2002 *Yosemite Valley Sanitary Sewer System Capital Improvement Plan*. Prepared for the National Park Service Yosemite National Park. September.

Kleinfelder, Inc.

- 1999 *Soil and Transformer PCB Assessment Report*. Letter report to Mark Matheny, National Park Service, from Richard C. Fink, R.G., C.E.G., Senior Geologist, and David Berry, Ph.D., Senior Toxicologist. June 11.

Land and Community Associates

- 1994 *Yosemite Valley Cultural Landscape Report, Project No. YOSE-504-15, Yosemite National Park, California*. Volumes 1 and 2. Prepared in association with Jones and Jones Architects, Seattle Washington. Prepared for United States Department of the Interior, National Park Service, Yosemite National Park.

Madej, M.A., V. Ozaki, C. Jones, and G. Gibbs

- 1997 *Channel Changes in the Merced River Following the January 1997 Flood*.

Martin and Martin

- 2003 *Existing Northside Drive over Yosemite Creek Bridge Yosemite National Park Current Condition Assessment*. Prepared for Sasaki Associates, Inc. Draft dated April 14.

McMichael, Vickie

- 2003 Phone Notes from conversation between Vickie McMichael, Environmental Manager of Delaware North Corporation at Yosemite and Christine Mueller, Environmental Science Associates. June 24.

McNutt, S., Bryant W., Wilson R.

- 1991 *Mono Lake Earthquake of October 23, 1990*, California Geology Volume 44, Number 2, (California Division of Mines and Geology), February.

Merriam, C. Hart

- 1917 *Indian Villages and Camp Sites in Yosemite Valley*. Sierra Club Bulletin 10:202-209.

Milestone, James F.

- 1978 *The Influence of Modern Man on the Stream System of Yosemite Valley*. M.A. Thesis, San Francisco State University.

Muir, John

- 1901 Excerpt from *Our National Parks*.
http://www.yosemite.ca.us/john_muir_exhibit/writings/the_earthquake.html.
Accessed June 3, 2003.

Mundy, W. Joseph

- 1985 *Field Work Summary, 1985 Yosemite Valley Investigations (YOSE 85B)*. United States Department of the Interior, National Park Service, Yosemite Archaeology Office, El Portal.
- 1986 *Field Work Summary, 1986 Yosemite Valley Investigations (YOSE 86D)*. United States Department of the Interior, National Park Service, Yosemite Archaeology Office, El Portal.

National Park Service (NPS), U.S. Department of the Interior

- 1980 *General Management Plan, Final Environmental Impact Statement, Yosemite National Park*.
- 1982 *NPS-2 Planning Process Guideline*.
- 1984 *Park Road Standards*.
- 1988 *Management Policies*. United States Department of the Interior, National Park Service.
- 1990 *Fieldwork Summary: The 1999 YP&CCo. Housing Archaeological Project (YOSE 89-D)*. United States Department of the Interior, National Park Service, Yosemite Archaeology Office, El Portal.
- 1991a *Analysis of Bank Erosion on the Merced River, Yosemite Valley, Yosemite National Park*. Prepared by M. Madej, W. Weaver and D. Hagans. U.S. Department of the Interior, Redwood National Park, Arcata, California
- 1991b *Natural Resources Management Guidelines (NPS-77)*.
- 1991c *NPS-28 Cultural Resources Management Guidelines*. U.S. Department of the Interior, National Park Service. Washington D.C.
- 1992 *Concession Service Plan Environmental Impact Statement*. Yosemite National Park, California. August.

- 1994a *Project Summary for Utility Line Rehabilitation, 1985 through 1992 (YOSE 1992-O)*. United States Department of the Interior, National Park Service, Yosemite Archaeology Office, El Portal.
- 1994b *The Plant Communities of Yosemite Valley — A Map and Descriptive Key*. Prepared by Lisa Acree. Technical Report NPS/WRUC/NRTR-94-10. Davis, CA: CNPSU/NPS.
- 1997a *Analysis of the Hydrologic, Hydraulic and Geomorphic Attributes of the Yosemite Valley Flood: January 1-3, 1997*. Prepared by W. Jackson, G. Smillie and M. Martin. Technical Report NPS/NR WRD/NR TR-97/129.
- 1997b *Biological Assessment – El Portal Road Improvements*.
- 1997c *Draft Yosemite Lodge Area Development Concept Plan Environmental Assessment*. Yosemite National Park. April.
- 1997d *El Portal Road Improvement Environmental Assessment*.
- 1997e *Geotechnical Investigation Report, Yosemite Lodge Redevelopment*. Yosemite National Park. July.
- 1997f *Vegetation Management Plan*. Yosemite National Park. June.
- 1997g *Yosemite Lodge and Facilities Asbestos Building Survey*. Yosemite National Park. September.
- 1997h *Yosemite Lodge Area Development Concept Plan Finding of No Significant Impact*. Yosemite National Park. July.
- 1998a *Director's Order 2: Park Planning*.
- 1998b *Procedural Manual #77-1: Wetland Protection*. Technical Report NPS/NRWRD/NRTR-98-203. October 15.
- 1998c *Root Rot Management Notes*.
- 1998d *Schematic Design Project Summary, Reconstruct Yosemite Lodge, Flood Recovery Project, Package 905/906*, Yosemite National Park. March.
- 1998e *Yosemite Lodge and Camp 4 Sewer Line Repair and Replacement Environmental Assessment/Finding of No Significant Impact*. December.
- 1998f *Yosemite Lodge Area Development Concept Plan Modified Finding of No Significant Impact*. Yosemite National Park. August.
- 1999a Code of Federal Regulations, Title 36, Section 800.
- 1999b *Comprehensive Landscape and Revegetation Plan*. Yosemite National Park, California. March.
- 1999c *Programmatic Agreement among the National Park Service at Yosemite, the California State Historic Preservation Officer, and the Advisory Council on Historic Preservation Regarding Planning, Design, Construction, Operations and Maintenance, Yosemite National Park, California*.
- 1999d *Yosemite Lodge Soil-Test Archaeological Monitoring, Yosemite National Park, California*. United States Department of the Interior, National Park Service, Office of Flood Recovery, Yosemite.
- 2000a *Final Yosemite Valley Plan/Supplemental Environmental Impact Statement*. November.
- 2000b *Final Yosemite Valley Plan/Supplemental Environmental Impact Statement Record of Decision*. December.

- 2000c *Management Policies 2001*. December.
- 2000d *Merced Wild and Scenic River Comprehensive Management Plan/Final Environmental Impact Statement*. June.
- 2000e *Merced Wild and Scenic River Comprehensive Management Plan/Final Environmental Impact Statement Record of Decision*. August.
- 2000f *Yosemite National Park Visitor Use Study August 1999*. May.
- 2001a *Director's Order #12: Conservation Planning, Environmental Impact Analysis, and Decision-making*. January.
- 2001b *Lower Yosemite Fall Project Environmental Assessment*. Yosemite National Park. December.
- 2001c *Merced Wild and Scenic River Comprehensive Management Plan*. Yosemite National Park, February.
- 2001d *National Register of Historic Places Registration Form for Camp 4 Sunnyside Campground*. Yosemite National Park. October.
- 2001e *Yosemite National Park List of Classified Structures*. United States Department of the Interior, National Park Service, Yosemite National Park. Generated March 20.
- 2002a *Black Bear Activity Report*. Available online at <http://www.nps.gov/yose/now/bears.htm>. Accessed June 16.
- 2002b *Director's Order 77-1: Wetland Protection*. October 30.
- 2002c Personal communication from Ed Billington, Yosemite National Park Maintenance Division, to Tonya Redfield, Environmental Science Associates, September 19.
- 2002d Personal communication via email from Paul Pyle, Yosemite National Park to Samantha Weber, Yosemite National Park. November 26.
- 2002e Personal communication from Steve Thompson, Yosemite National Park Resources Division, to Christine O'Rourke, Environmental Science Associates. December 11.
- 2002f *Saxifraga Mertensiana (Wood Saxifrage) Survey – Proposed Site for the Indian Cultural Center, Yosemite Valley, Yosemite National Park*. November.
- 2002g *Yosemite Lodge Package Project Compliance Strategy*. April.
- 2002h *Yosemite Lodge Utilities (plan/map)*. September 16.
- 2002i *Yosemite National Park Planning Update*. Volume 22. July.
- 2003a *Director's Order 77-2: Floodplain Management*.
- 2003b Personal communication from Don Coffman, Yosemite National Park Fire Prevention Officer, to Christine Mueller, Environmental Science Associates, July 1.
- 2003c *Yosemite National Park Planning Update*. Volume 23. January.
- Natural Resource Conservation Service (NRCS)
- 1995a *Soil Survey of High Sierra Area, California*.
- 1995b *Soil Survey of Tuolumne Meadows Study Area, Yosemite National Park*.
- Provost & Pritchard Engineering Group
- 2003 Memo from Michael Taylor, Provost & Pritchard Engineering Group, to Mark Hoffheimer, Sasaki Associates, Inc. June 18.

Randall, David

- 2003 Phone Notes from conversation with David Randall, Planner, Madera County Planning Department and Nik Carlson, Environmental Science Associates. June 18.

Sasaki Associates, Inc. (Sasaki)

- 2002 *Yosemite National Park Site Planning Conceptual Studies for the Design and Construction of Yosemite Lodge, Expansion of Camp 4, and Relocation of Northside Drive*. Prepared for the National Park Service in association with Provost & Pritchard Engineering Group. Draft dated September 30.

Soil Conservation Service

- 1974 *Soil Survey of Mariposa County Area, California*.

U.S. Department of Commerce, Bureau of Economic Analysis

- 2003 Regional Accounts Data, Local Area Personal Income, California CA1-3 – Personal income, 2003, <http://www.bea.doc.gov/bea/regional/reis/>

U.S. Department of Labor, Bureau of Labor Statistics

- 2000 Consumer Price Index – All Urban Consumers, <http://www.data.bls.gov/cgi-bin/survey/most>

U.S. Department of the Interior

- 1983 The Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation. *Federal Register* 48(190): September 29.

U.S. Environmental Protection Agency (EPA)

- 1971 *Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances*. Prepared by Bolt, Beranek and Newman for U.S. EPA. December 31.

U.S. Fish and Wildlife Service (USFWS), U.S. Department of the Interior

- 1979 *Classification of Wetlands and Deepwater Habitats of the United States*. Prepared by L.M. Cowardin, V. Carter, F.R. Govet, and E.T. LaRoe. FWS/OBS-79/31.
- 1995 *National Wetlands Inventory*.
- 2002 *Species List for Reconstruction of Yosemite Lodge, Expansion of Camp 4, and Design of Indian Cultural Center, Yosemite National Park, Mariposa County, California*. Letter from J.C. Knight to L. Acree. September 27.

U.S. Forest Service (USFS)

- 1993 *Soil Survey of Sierra National Forest Area, California*.
- 2002 *Analysis of Public Comment, Yosemite National Park, Yosemite Lodge Area Redevelopment Plan, Public Scoping*. Prepared for the National Park Service. November.

U.S. Geological Survey (USGS), U.S. Department of the Interior

- 1998 *Rockfall Hazards in Yosemite Valley*. Prepared by G.F. Wieczorek, M.M. Morrissey, G. Iovine, and J. Godt. U.S. Geological Survey, Open File Report 98-467.
- 1999 *Rock-fall Potential in the Yosemite Valley, California*. Prepared by G.F. Wieczorek, M.M. Morrissey, G. Iovine, and J. Godt. U.S. Geological Survey Open-file Report 99-578. greenwood.cr.usgs.gov/pub/open-file-reports/ofr-99-0578.

University of California at Davis (UC Davis)

- 1996 *Sierra Nevada Ecosystem Project, Final Report to Congress.*

White, Gordon

- 1997 *Draft Determination of Eligibility for the National Register, Wood Cabins Located in Yosemite Lodge, Yosemite National Park, California.* Prepared for the United States Department of the Interior, National Park Service, Yosemite National Park.

Williamson, R.L., R. Simonsen, D. Spoto, T. Taylor, and G. Olson

- 1996a *Yosemite National Park: Upper Merced River Sanitary Survey.* Prepared for the National Park Service by the Department of Civil Engineering and Applied Mechanics, San Jose State University, January.

Williamson, R.L., D. Spoto, R. Simonsen, F. Bravo, J. Hendrickson, and J. O'Keefe

- 1996b *Yosemite National Park: Wawona Watershed Sanitary Survey.* Prepared for the National Park Service by the Department of Civil Engineering and Applied Mechanics, San Jose State University, January 1.

Yosemite Concession Services Corporation (YCS)

- 2002 *Yosemite Lodge Accommodations and Reservations.*
http://yosemitepark.com/html/accom_yosemite.html.

Zeiner, D.C., W.F. Laudenslayer, K.E. Mayer and M. White

- 1999 *California's Wildlife.* Vols. I, II and III. California Statewide Wildlife Habitat Relationships System (Version 7.0). California Department of Fish and Game. Sacramento, CA.

Glossary of Terms

100-year floodplain: The area along the river corridor that would receive flood waters during the 100-year flood event. A 100-year flood event has the probability of occurring 1% of the time during any given year. If a 100-year flood event occurs, the following year will still have the same probability for occurrence of a 100-year event. For the purposes of this environmental assessment, the 100-year floodplain also includes wetlands and meadows associated with the hydrologic and ecological processes of the river.

Affected environment: Existing biological, physical, and social conditions of an area that are subject to change, both directly and indirectly, as a result of a proposed human action.

Alluvial: An adjective referring to alluvium, which are sediments deposited by erosional processes, usually by streams.

Alluvial fan: Sediments deposited that channel outward in different directions from a centralized point.

Alluvium: A general term for clay, silt, sand, gravel, or similar unconsolidated rock fragments or particles deposited during comparatively recent geologic time by a stream or other body of running water.

Alternatives: Sets of management elements that represent a range of options for how, or whether to proceed, with a proposed project. An environmental assessment analyzes the potential environmental and social impacts of the range of alternatives presented.

Annosus root disease: A root disease caused by a widespread native fungus (*Heterobasidion annosum*). In pines, the fungus spreads through the root system, attacking the inner bark and sapwood. Two to six years after initial infection, the fungus reaches the root crown and girdles the tree, but remains active as a wood-decaying organism within the roots and trunk of the dying tree. Pines weakened by annosus root disease are often killed by bark beetles. Incense-cedars, however, are not affected by bark beetles and will stand green for many years until the disease so weakens the trees that they fall down. Cedars are thought to act as a reservoir for annosus root disease because they take so long to die from the disease.

Archeological resource: Any material remains or physical evidence of past human life or activities that are of archeological interest, including the record of the effects of human activities on the environment. They are capable of revealing scientific or humanistic information through archeological research.

Area of potential effect: The area a project could potentially be affected by a proposed action.

Armillaria root rot: A native plant disease primarily affecting oaks, but other tree species as well; sometimes exacerbated by management activities. It can also result in tree hazards.

Bank: The area below the ordinary highwater mark in a river or stream. The ordinary highwater mark is defined by the U.S. Army Corps of Engineers as the line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial

vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding area.

Base of talus zone: The area where the majority of accumulated rock debris is deposited at the base of a steep slope following a mass movement event (i.e., rockfall).

Bed: Refers to the relatively flat or level bottom (substrate) of a body of water, as in a lakebed or riverbed.

Best Management Practices: Effective, feasible (considering technological, economic, and institutional constraints) conservation practices and land- and water-management measures that avoid or minimize adverse impacts to natural and cultural resources. Best Management Practices may include schedules for activities, prohibitions, maintenance guidelines, and other management practices.

Boundaries: The areas that receive protection under the Wild and Scenic Rivers Act. Boundaries include an average of not more than 320 acres of land per mile, measured from the ordinary high-water mark on both sides of the river.

Braided stream channel: A stream channel that is characterized by the division of water flow into more than one channel. A basic characteristic of this pattern is the diversion of a single trunk channel into a network of interconnected branches and the formation of interspersed islands.

Cabin: A structure containing one to four lodging units, as defined in the 1992 *Concession Services Plan/Environmental Impact Statement*. For the Yosemite Lodge Area Redevelopment project, a cabin is a one-story, four lodging unit structure (see figure II-5).

Canopy: The uppermost layer of a forest where a layer of tree branches spread.

CEQ regulations: The Council on Environmental Quality (CEQ) was established by the National Environmental Policy Act (NEPA) and given the responsibility for developing federal environmental policy and overseeing the implementation of NEPA by federal agencies.

Check dam: A dam constructed across a drainage ditch, swale, or channel to lower the velocity and volume of concentrated flows. Lower velocity reduces erosion and gully in the channel and allows sediments and other pollutants to settle out behind the dam.

Classifications: The status of rivers or river segments under the Wild and Scenic Rivers Act (“Wild,” “Scenic,” or “Recreational”). Classification is based on the existing level of access and human alteration of the site.

Colonizing: Describes species that enter unoccupied or sparsely occupied habitats (e.g., newly exposed soil), perhaps following a major disturbance, and persisting there or colonizing an area until supplanted by successional species. Colonizing implies successful reproduction in the new area, not simply the presence of a species there.

Comprehensive management plan: A plan to protect and enhance a Wild and Scenic River. The Merced Wild and Scenic River Comprehensive Management Plan is the National Park Service’s comprehensive management plan for segments of the Merced River corridor under its jurisdiction.

Cottage: A lodging structure containing five to eighteen lodging rooms, as defined in the 1992 *Concession Services Plan/Environmental Impact Statement*. For the Yosemite Lodge Area Redevelopment project, a cottage is a two-story, eighteen lodging unit structure (see figure II-5).

Cowardin wetlands: The Cowardin system is used as the basis for wetland classification and protection by the National Park Service. The Cowardin system classifies wetlands based on the type of vegetative cover and lifeform, flooding regime, and substrate material. Cowardin wetlands include jurisdictional wetlands but may also include certain non-vegetated sites and sites lacking soil, if they meet specific criteria.

Criteria air pollutants: Six air pollutants for which federal and state air quality standards have been established, primarily to protect human health and welfare, including ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, suspended particulates with diameters of 10 microns or less, and lead. Criteria pollutants are regulated separately from air toxics at both federal and state levels. Documented health effects from air pollution include acute respiratory infections, chronic bronchitis, pulmonary emphysema, and bronchial asthma.

Cultural landscape: A reflection of human adaptation and use of natural resources and is often expressed in the way land is organized and divided, patterns of settlement, land use, systems of circulation, and the types of structures that are built. The character of a cultural landscape is defined both by physical materials, such as roads, buildings, walls, and vegetation, and by use reflecting cultural values and traditions.

Debitage: Waste flakes created during the production of flaked stone tools.

Decibel: A decibel (dB) is a unit of sound energy intensity. Sound waves, traveling outward from a source, exert a sound pressure level (commonly called “sound level”) measured in dB. An A-weighted decibel (dBA) is a decibel corrected for the variation in frequency response of the typical human ear at commonly encountered noise levels.

Desert side-notched projectile point: A distinctive type of projectile point widespread in parts of California that generally dates between 800 and 150 years before present. These are small points that were probably used as arrow points. In the Yosemite Valley, they form part of the Mariposa Complex.

Eastgate projectile point: A distinctive type of projectile point widespread in parts of California that generally dates between 1,200 and 800 years before present. These are small points that were probably used as arrow points. In the Yosemite Valley, they form part of the Tamarack Complex.

Ecosystem: An ecosystem can be defined as a geographically identifiable area that encompasses unique physical and biological characteristics. It is the sum of the plant community, animal community, and environment in a particular region or habitat.

Elko series projectile point: Several distinct but similar types of projectile points widespread in California that generally date between 3500 and 1200 years before present. These are medium to large points that were probably used as dart tips. In the Yosemite Valley, they may form part of the Crane Flat Complex.

Environmental assessment: A public document required under NEPA that identifies and analyzes activities that might affect the human and natural environment. An environmental assessment is a concise public document that provides sufficient evidence and analysis for determining whether to prepare an environmental impact statement, aids an agency's compliance with NEPA when no environmental impact statement is necessary, and facilitates preparation of an environmental impact statement when one is necessary.

Environmental impact statement (EIS): A public document required under NEPA that identifies and analyzes activities that might affect the human and natural environment.

Ethnographic resource: A site, structure, object, landscape, or natural resource feature assigned traditional legendary, religious, subsistence, or other significance in the cultural system of a group traditionally associated with it.

Exfoliation: The process in which concentrated shells of weathering form on the outside of a rock and become separated from the rock. These thin shells of weathered rock are separated by stresses that result from changes in volume of the minerals that occur as a result of the formation of new minerals.

Facilities: Buildings and the associated supporting infrastructure such as roads, trails, and utilities.

Finding of no significant impact (FONSI): The public document describing the decision made on selecting the preferred alternative in an environmental assessment. See "environmental assessment."

Floodplain: A nearly level alluvial plain that borders a stream and is subject to flooding unless protected artificially.

Frazil ice: Stream ice with the consistency of slush, formed when small ice crystals develop in super-cooled stream water as air temperatures drop below freezing. These ice crystals join and are pressed together by newer crystals as they form.

Full-time equivalent employment: A computed statistic representing the number of full-time employees that could have been employed if the reported number of hours worked by part-time employees had been worked by full-time employees.

Glacial till: Unconsolidated mixtures of clay, silt, sand, and gravel deposited directly by and underneath a glacier without being reworked by melt-water.

Glaciation: Effects on landforms produced by the presence and movement of a glacier.

Grader: A piece of heavy equipment used to level or smooth road or other surfaces to the desired gradient.

Groundwater: All subsurface water (below soil/ground surface), distinct from surface water.

Hazard trees: Any tree, either alive or dead, which due to outwardly visible defects could fall down (in part or in entirety) and strike a person or property within any designated portion of a development zone.

Hazardous material: A substance or combination of substances that, because of quantity, concentration, or physical, chemical, or infectious characteristics, may either: (1) cause or significantly contribute to an increase in mortality or an increase in serious, irreversible, or incapacitating illness; or (2) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.

Hazardous waste: Hazardous wastes are hazardous materials that no longer have practical use, such as substances that have been discarded, spilled, or contaminated, or that are being stored temporarily prior to proper disposal.

Impervious surface: A surface that is incapable of being penetrated by moisture, and includes building foot prints, paved parking areas, roads, and paved pathways. Impervious paving on the Yosemite Lodge Area Redevelopment site includes asphalt, concrete, and mortared masonry.

Jurisdictional wetlands: Jurisdictional wetlands are delineated and classified to meet regulations of Section 404 of the Clean Water Act.

Leq: The energy-equivalent noise level (or “average” noise level), Leq, is the equivalent steady-state continuous noise level which, in a stated period of time, contains the same acoustic energy as the time-varying sound level that actually occurs during the same period.

Ldn: The day-night average noise level, Ldn, is a weighted 24-hour noise level. With the Ldn descriptor, noise levels between 10:00 p.m. and 7:00 a.m. are adjusted upward by 10 dBA to take into account the greater annoyance of nighttime noise as compared to daytime noise.

Light trespass: Light intended to illuminate one area illuminates other nearby areas.

Light pollution: Outdoor lighting that emits stray light upwards, illuminating clouds, dust, and other airborne matter and obscuring the night sky.

Lithic: Pertaining to the rocks used by humans in the production of stone tools. Lithic artifacts can be produced by flaking, grinding, or pecking.

Milling feature: A bedrock or other large stone used for the grinding of materials, usually seeds or other plant resources.

Milling slick: The smooth part of a stone where grains were milled. It can be a component of a milling feature.

Mitigation: Activities that will avoid, reduce the severity of, or eliminate an adverse environmental impact.

Moraine: Debris such as boulders, stones, or sediment deposited by a glacier.

Mortar cup: A depression in stone made by the pounding or rubbing of material with a pestle.

Multi-use path: Paved path shared by pedestrians and bicyclists averaging 12 feet to 20 feet in width. Multi-use paths often provide limited use to maintenance and emergency vehicles.

National Environmental Policy Act (NEPA): The federal act that requires the development of an environmental assessment or environmental impact statement for federal actions that have the potential for environmental, social, or other impacts.

Native species: Species of plants or animals that naturally occur in a particular area and promote natural biological systems.

Natural conditions: The system of plants, animals, soil, water, and air derived from and influenced by ecological processes and where composition, structure, and function are in a naturally-occurring state.

No action alternative: The alternative in a plan that proposes to continue current management direction. “No action” means the proposed activity would not take place, and the resulting environmental effects from taking no action would be compared with the effects of permitting the proposed activity or an alternative activity to go forward.

Non-native species: Species of plants or wildlife that are not native to a particular area and often interfere with natural biological systems. Sometimes referred to as “exotics.”

Non-point source pollution: Pollution that occurs when water runs over land or through the ground, picks up pollutants, and deposits them in surface water and introduces them into groundwater. Examples of nonpoint sources are roadways, parking lots, and landscaped areas. Pollutants from these locations can include petrochemicals, heavy metals, and fertilizers.

Ordinary high water: The line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding area.

Outstandingly Remarkable Values: Those resources in the corridor of a Wild and Scenic River that are of special value and warrant protection. Outstandingly Remarkable Values are the “scenic, recreational, geologic, fish and wildlife, historic, cultural or other similar values...that shall be protected for the benefit and enjoyment of present and future generations” (16 United States Code [USC] 1272).

Oxbow: A closely looping stream meander or lake resembling the U-shaped frame embracing an ox’s neck, having an extreme curvature such that only a neck of land is left between two parts of land.

Paleoenvironment: A term that refers to the environment that existed during some time in prehistory.

Palustrine: The palustrine system was developed to group the vegetated wetlands traditionally called by such names as marsh, swamp, bog, fen, and prairie, which are found throughout the United States. It also includes the small, shallow, permanent, or intermittent water bodies often called ponds. Palustrine wetlands may be situated shoreward of lakes, river channels, or estuaries; on river floodplains; in isolated catchments; or on slopes. They may also occur as islands in lakes or rivers. The palustrine system includes all nontidal wetlands dominated by trees, shrubs, persistent emergents, emergent mosses or lichens, and all such wetlands that occur in tidal areas

where salinity due to ocean-derived salts is below 0.5%. It also includes wetlands lacking such vegetation, but with all of the following four characteristics: (1) area less than 8 hectares (20 acres); (2) active wave-formed or bedrock shoreline features lacking; (3) water depth in the deepest part of basin less than 2 meters at low water; and (4) salinity due to ocean-derived salts less than 0.5%.

Particulate matter (PM-10): Fractions of particulate matter characterized by particles with diameters of 10 microns or less (PM-10). Such particles can be inhaled into the air passages and the lungs and can cause adverse health effects.

Pedestrian trail: Trails utilized by pedestrians only ranging from 4 to 12 feet in width with either paved or unpaved surfaces. For the Yosemite Lodge Area Redevelopment site, the narrower pedestrian trails (i.e., 4 to 6 feet in width) tend to be unpaved.

Pervious surface: A surface that allows moisture penetration into the ground, and includes natural areas and restored/revegetated areas.

Pictograph panel: A rock surface that contains multiple pictographs, which are symbols, geometric designs, animals, figures, or other depictions pecked into the rock surface using a hammerstone.

Potential effect: Change or impact to an environment that may be caused by implementing a proposed action.

Regulatory threshold: The concentration threshold set by a regulatory agency or agencies.

Rehabilitation: To restore or renew to a former capacity or function. Regarding structures it would include rebuilding while maintaining similar character of appearance and using existing materials when feasible.

Restoration (cultural): The act or process of accurately depicting the form, features, and character of an existing historic structure, landscape, or object as it appeared at a particular period of time, by removing modern additions and replacing lost portions of historic fabric, paint, or other elements. For the purpose of this environmental assessment, restoration does not necessarily match the definition given in The Secretary of the Interior's Standards and Guidelines for Archeology, and Historic Preservation (U.S. Department of the Interior 1983).

Restoration (natural): Work conducted to remove impacts to natural resources and restore natural processes, and to return a site to natural conditions. Yosemite Lodge Area Redevelopment restoration activities would include eradicating non-native species and conducting low-intensity prescribed burns to discourage conifer invasion and support rehabilitation of oak woodlands and riparian forests. The restoration effort would include conducting channel morphology, groundwater, and vegetation monitoring to document restoration changes and inform resource management efforts.

Revegetation: Replacement or augmentation of native plants in an area largely or entirely denuded of vegetation. The landscape of the Yosemite Lodge Area Redevelopment site would be revegetated based upon the principles described in the *Comprehensive Landscape and Revegetation Plan for Yosemite Lodge* (NPS 1999b). Existing and historic vegetative communities

would be re-established and enhanced within the project area using an applied ecological approach to revegetation. The revegetated landscape would be designed to provide communal outdoor spaces that encourage visitors to experience the out-of-doors.

Riparian areas: The land area and associated vegetation bordering a stream or river.

Riprap: Any hardening of a shoreline (with rocks or cement) to stabilize river banks for the protection of facilities on or near the bank.

River corridor: The area within the boundaries of a Wild and Scenic River (e.g., the Merced River corridor).

Rock alignment: An artificial linear or curvilinear arrangement of unmodified rocks or boulders created by humans. A rock alignment may represent a hearth or firepit, wall, building foundation, or similar feature.

Rockfall: Associated forms of mass movement such as rock avalanches, rockslides, debris slides, and debris flows.

Root rot disease: Disease caused by fungal pathogens that typically leads to live tree failure or predisposing the tree to bark beetle attack, colonization, and subsequent death.

Rose Spring projectile point: A distinctive type of projectile point widespread in parts of California that generally dates between 1200 and 800 years before present. These are small points that were probably used as arrow points. In the Yosemite Valley, they form part of the Mariposa Complex.

Scenic category: A classification of scenic values based on their viewing significance, scenic quality, and inclusion of meadows and the Merced River. Categories of scenic views range from A to C (A being of most significance and C being of least significance).

Sediment: A particle of soil or rock that was dislodged, entrained, and deposited by surface runoff or a stream. The particle can range in size from microscopic to cobblestones.

Semipervious surface: A surface that allows partial penetration by moisture, and includes decomposed granite paving, dirt trails, and campgrounds.

Shadow line zone: A distance calculated to determine outlying boulder locations beyond the extent of talus. The shadow line zone is determined by a procedure based on the apex of the talus and a minimum shadow angle of 22 degrees.

Sierra series projectile point: Several distinct but similar types of projectile points common in the Sierra Nevada of California that generally date to older than 1200 years before present. These are medium to large points that were probably used as dart tips. In the Yosemite Valley, they may form part of the Crane Flat Complex.

Snag: A standing dead tree.

Social trail: A social trail is an informal, nondesignated trail between two locations. Social trails often result in trampling stresses to sensitive vegetation types.

Special-status species: Species of plants or wildlife that receive special protection under state and/or federal laws. Also referred to as “listed species” or “threatened and endangered species.”

Steatite: A metamorphic rock composed largely of talc, giving it a soft consistency and smooth texture. Also referred to as soapstone, it was commonly carved, ground, or polished to produce ornamental and/or ceremonial objects like beads, pendants, and figurines.

Stock/pedestrian trail: An unpaved trail shared by stock (i.e., horses) and pedestrians typically ranging between 4 to 6 feet in width.

Talus: Rock fragments of any size or shape derived from and lying at the base of a cliff or very steep rocky slope. Also refers to outward sloping and accumulated heap of loose, broken rock considered as a unit and formed primarily by falling, rolling, or sliding.

Talus slope zone: Area where the majority of rock materials are deposited during a mass movement (rockfall) event.

Threatened and endangered species: Species of plants or wildlife that receive special protection under state and/or federal laws. Also referred to as “listed species” or “special-status species.”

Traditional Cultural Property: An ethnographic resource determined eligible for the National Register of Historic Places.

Traffic calming feature: A one-way circular roadway feature designed to separate east- and west-bound traffic streams to promote safe traffic flow conditions on realigned Northside Drive.

Trail: A route that is designed, designated, or constructed for recreational pedestrian or bicycle use or provided as a pedestrian alternative to vehicular routes within a transportation system. Also see “multi-use path,” “pedestrian trail,” and “stock/pedestrian trail.”

Umacha: A traditional cedar bark structure typically used as a dwelling by American Indians.

U.S. Jurisdictional Wetlands: See Waters of the U.S.

Vantage point: A site-specific location that is either designed for or provides specific opportunities for visitors to view park scenery.

Water resources project: A water resources project is any dam, water conduit, reservoir, powerhouse, transmission line, or other works project under the Federal Power Act, or other developments, that would affect the free-flowing characteristics of a wild and scenic or congressionally authorized study river. In addition to projects licensed by the Federal Energy Regulatory Commission, water resources projects may include: dams, water diversions, fisheries habitat and watershed restoration, bridges and other roadway construction/reconstruction projects, bank stabilization projects, channelization projects, levee construction, boat ramps, fishing piers, and activities that require a Section 404 permit from the U.S. Army Corps of Engineers.

Waters of the U.S.: The term “waters of the U.S.” as defined in Code of Federal Regulations (33 CFR 328.3[a]; 40 CFR 230.3[s]) includes: (1) All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide; (2) All interstate waters including interstate

wetlands; (3) All other waters such as non-isolated intrastate lakes, rivers, streams (including intermittent streams), mud flats, sand flats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation, or destruction of which could affect interstate or foreign commerce including any such waters which are or could be used by interstate or foreign travelers for recreational or other purposes; or from which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or which are used or could be used for industrial purposes by industries in interstate commerce; (4) All impoundments of waters otherwise defined as waters of the U.S. under the definition; (5) Tributaries of waters identified in paragraphs (1) through (4); (6) Territorial seas; and (7) Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (1) through (6). Also, U.S. Jurisdictional Wetlands.

Weathering: The decomposition and disintegration of rocks and minerals at the earth's surface. Weathering results in the formation of sediment that is carried away by erosion to form sedimentary rocks, and regolith that remains in place to form soils. Weathering can be subdivided into two types: physical (mechanical) and chemical.

Wetland: Wetlands under Section 404 of the Clean Water Act (CFR, Section 328.3[b], 1986) are defined as those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

Wild and scenic rivers: Those rivers receiving special protection under the Wild and Scenic Rivers Act.

Wilderness: Those areas protected by the provisions of the 1964 Wilderness Act. These areas are characterized by a lack of human interference in natural processes.

Acronyms

CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CO	carbon monoxide
dB	decibel
dBA	A-weighted decibels
DBH	Diameter (of a tree trunk at) breast height
EDD	Economic Development Department
EPA	Environmental Protection Agency
FONSI	Finding of No Significant Impact
Ldn	day-night average noise level
Leq	energy-equivalent noise level
Lmax	maximum noise level
MTBE	methyl tertiary butyl ether
NEPA	National Environmental Policy Act
NO ₂	nitrogen dioxide
NPS	National Park Service
NRCS	National Resource Conservation Service
PCB	polychlorinated byphenyls
PL	public law
PM-2.5	particulate matter less than 2.5 microns in diameter
PM-10	particulate matter less than 10 microns in diameter
RCRA	Resource Conservation and Recovery Act
RWQCB	Regional Water Quality Control Board
SEIS	supplemental environmental impact statement
SO ₂	sulfur dioxide
USC	United States Code
USDOI	U.S. Department of the Interior
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
VOC	volatile organic compounds
YARTS	Yosemite Area Regional Transportation System